CAMPYLOBACTERIOSIS

Clinical Features: An illness characterized by diarrhea, abdominal pain, malaise, fever, nausea, and vomiting. Stools may contain visible or occult blood. Clinical manifestations from *Campylobacter* can range from mild infections lasting 1 to 2 days to severe persistent infections. Occasionally, long-term consequences may result from infection, including Guillain-Barre′ syndrome (GBS), a rare disease that affects the nervous system.

Causative Agent: *Campylobacter spp*., most commonly *Campylobacter jejuni*

Mode of Transmission: Occurs after ingestion of contaminated liquids (particularly untreated water or unpasteurized milk and juices) or food (undercooked chicken or pork). Direct contact with fecal material from infected animals and person-to-person contact are less frequent causes of infection. Reservoirs include animals, most commonly poultry and cattle. Puppies, kittens, other pets, swine, sheep, rodents, and birds may also be sources of human infection. Chronic infection of poultry and other animals constitutes the primary source of infection.

Incubation Period: Usually 2 to 5 days, with a range of 1-10 days

Period of Communicability: Throughout the course of infection; usually from several days to several weeks; can last from 2 to 7 weeks if not treated with antibiotics

Public Health Significance: *Campylobacter spp.* is an important cause of diarrheal illness in all parts of the world and in all age groups. Common source outbreaks have occurred, most often associated with foods, especially undercooked chicken, unpasteurized milk, and nonchlorinated water

Reportable Disease in Kansas Since: 1990

Laboratory Criteria for Surveillance Purposes

- Isolation of *Campylobacter* from any clinical specimen.

Surveillance Case Definitions

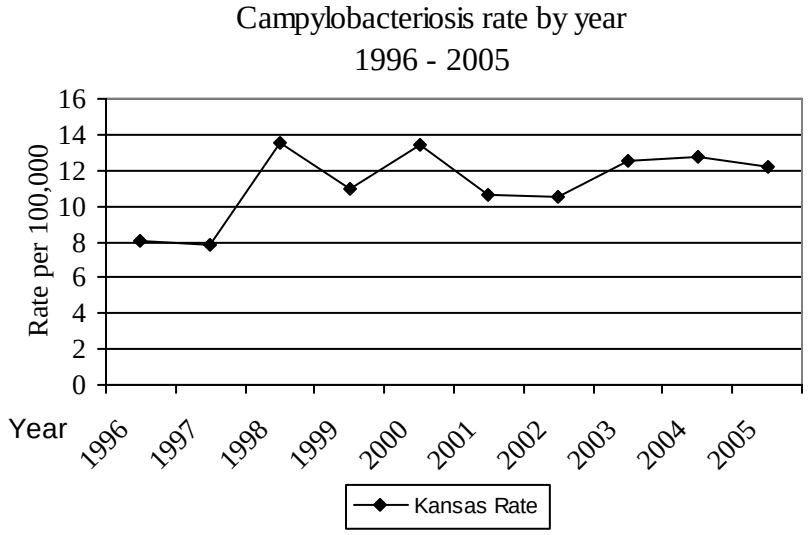
- *Confirmed:* A case that meets the clinical case definition and is laboratory confirmed.

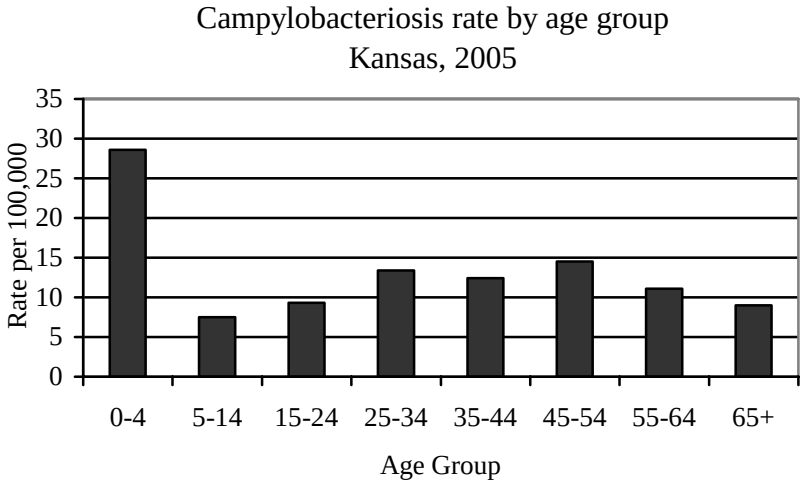
- *Probable:* A case that meets the clinical case definition and occurs in a person who has an epidemiologic link with a person who has laboratory-confirmed campylobacteriosis.

Epidemiology and Trends

2005 Kansas Count: 335

	Rate per 100,000	*95% CI*
Kansas Rate	12.2	(10.9 – 13.6)
U.S. Rate (2004)	*NA*	*NA*
Gender		
Male	13.6	(11.7 – 15.6)
Female	10.9	(9.1 – 12.6)
Race		
White	9.4	(8.1 – 10.6)
Black	3.5	(0.7 – 6.2)
Asian/Pacific Islander	6.4	(0.1 – 12.7)
Native American	3.3	(0 – 9.7)
Ethnicity		
Hispanic	6.4	(3.0 – 9.7)
Non-Hispanic	6.9	(5.9 – 7.9)
Geographic area		
Urban County	11.1	(9.4 – 12.9)
Non-Urban County	13.4	(11.4 – 15.3)





Campylobacter is one of the most commonly reported causes of gastrointestinal illnesses in Kansas. In 2005, 335 cases were reported; 13 fewer cases than the total reported in 2004. The three-year median for 2002-2004 was 339; the number of reported cases had increased each year over that three-year period.

A decrease was noted during 2005 because many cases failed to meet the laboratory criteria for a confirmed case. Instead of isolating *Campylobacter* from a clinical specimen, one southwest Kansas hospital performed EIA tests to diagnose *Campylobacter* infection. (This practice has been occurring for many years at this hospital, but KDHE only became aware of it during 2005.) As a result, 49 EIA-positive patients from that hospital were classified as "suspect" cases rather than "confirmed". If confirmatory tests had been performed on the 49 suspect cases, it is likely that the total number of confirmed cases would have risen for a fourth consecutive year.

The exclusion of the 49 suspect cases may also explain the decrease in the 2005 incidence rate among Hispanics. In 2005, the incidence rate of *Campylobacter* was 6.4 per 100,000, a decrease from the rate of 14.1 per 100,000 that was reported during 2004. Southwest Kansas is home to many of the state's Hispanic residents, including 16 (33%) of the suspect *Campylobacter* cases. Ethnicity was unknown for 19 (39%) of the suspect cases, and 148 (44%) of the confirmed cases.

Confirmed cases ranged in age from less than one year to 98 years of age. The median age of cases was 34 years. The highest incidence rate occurred in those under 5 years of age (28.6/100,000). Of the campylobacteriosis cases reported in 2005, 193 (58%) were *jejuni*, four (1%) were *coli*, one (0.1%) was *upsaliensis*, and the remainder (41%) were not speciated.